

920476-904967

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the application of : Philip J Christian et al.
Serial No. : 09/991,386
Filed : November 13, 2001
For : Allocating Internet Protocol (IP) Addresses
to Nodes in Communications Networks
Which Use Integrated IS-IS
Examiner : Victor D Lesniewski
Art Unit : 2152
Customer number : 23644

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

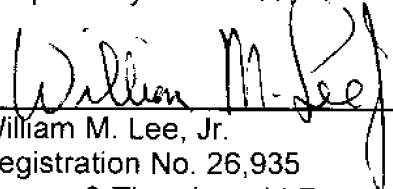
Honorable Director of Patents and Trademarks
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir,

In Response to the Notification mailed June 21, 2007, appended hereto is a revised section (v), having the subject matter mapped to each of the independent claims. As also required by the Notification of June 21, 2007, the entire Brief is not being re-filed, but rather just section (v).

July 20, 2007

Respectfully submitted,



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(v) Summary of Claimed Subject Matter

Independent claim 1:

This claim summarizes the invention conveniently and specifies a method of automatically allocating a unique internet protocol (IP) address to a first node in an integrated intermediate-system-to-intermediate-system (IS-IS) communications network said method comprising the steps of:-

- (i) accessing information about one or more potentially available IP addresses which may be allocated to provide the first node with a unique IP address at which the first node may be contacted;
- (ii) selecting one of the potentially available IP addresses to allocate to the first node; and
- (iii) sending information about the selected IP address to nodes in the IS-IS communications network.

IS-IS nodes use ISO addresses. Conventionally, IS-IS nodes are not allocated unique IP addresses. As discussed in the background section of the present application (page 1 lines **), IS-IS nodes may be closely associated with, or integrated with, IP routers which are allocated IP addresses. Thus, there is no need to allocate IP addresses to IS-IS nodes for routing purposes. However, the present inventors realized that allocation of a unique IP address to IS-IS nodes is still useful - not for routing purposes - but for management purposes. For example, a unique IP address allows for IP-based network management applications to be re-used for IS-IS management as well. The present invention provides a way of automatically allocating a unique IP address to an IS-IS node which avoids the need for manual configuration of an address to each IS-IS node.

Figure 1 shows an example Open Systems Interconnection (OSI) network in which the invention can be applied, comprising nodes 11-16. Any of the nodes 11-16 can be allocated a unique internet protocol (IP) address using the method of claim 1. In accordance with a first embodiment, described at page 9 line 12 – page 10 line 17 and Fig. 2, information about one or more available IP addresses is stored at a server in the OSI network (10, Fig. 1). When a new network node (e.g. node 12, Fig. 1) is added to the network, it requests an IP address. The server selects one of the available IP addresses (step 22, Fig.2, page 10 lines 1-8) for allocation to the first node and sends information about the selected IP address to the nodes (11-16) by a flooding method. IP address information can be carried within an extension (51) of a Link State PDU (LSP), as shown in Fig. 5.

In another embodiment, described at page 10 line 29 – page 11 line 31 and in Fig.3, a network node (e.g. node 12, Fig.1) stores a plurality of pre-specified IP addresses (step 30, Fig. 3) and selects one of those (step 32, Fig. 3). The node informs other nodes about the selected IP address (page 11 lines 29-31), such as by sending LSPs of the type shown in Fig. 5.

Independent claim 12:

This claim has corresponding distinctive features and so the discussion of claim 1 applies here. Appropriate reference numerals of Fig. 1 correspond to the claim features as follows. Claim 12 specifies a server (10) connected to an integrated intermediate-system-to-intermediate-system (IS-IS) communications network (19) and arranged to automatically allocate an internet protocol (IP) address to a first node (12) in that communications network, said server (10) comprising:- (i) a store comprising information about one or more potentially available IP addresses which may be allocated to provide the first node with a unique IP address at which the first node may be contacted; (ii) a processor arranged to select one of the potentially available IP addresses to allocate the first node (12); and (iii) an output arranged to issue one or more messages containing information about the selected IP address to nodes (11-16) in the IS-IS communications network (19).

Independent claim 15:

This claim has corresponding distinctive features and so the discussion of claim 1 applies here. Appropriate reference numerals of Fig. 1 and the flow diagram of Fig. 3 correspond to the claim features as follows. Claim 15 specifies a communications network node (e.g. node 12, Fig. 1) for use in an integrated intermediate-system-to-intermediate-system (IS-IS) communications network and requiring a unique internet protocol (IP) address, said communications network node (12) comprising:-

- (i) a store comprising information about one or more potentially available IP addresses which may be allocated to provide the first node with a unique IP address at which the first node may be contacted (step 30, Fig. 3);
- (ii) a processor arranged to select one of the potentially available IP addresses to allocate the first node (step 32, Fig. 3); and
- (iii) an output arranged to issue one or more messages containing information about the selected IP address to nodes in the IS-IS communications network (page 11 lines 29-31).

Independent claim 19:

This claim recites an integrated intermediate-system to - intermediate-system (IS-IS) communications network comprising a server which has corresponding distinctive features as recited in claim 12, and so the discussion of claims 1 and 12 applies here.

Independent claim 20:

This claim recites an integrated intermediate-system to - intermediate-system (IS-IS) communications network comprising a node which has corresponding distinctive features as recited in claim 15, and so the discussion of claims 1 and 15 applies here.